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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/526,482	03/15/2000	Ryuichi Hori	2000 0274A	1658

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EXAMINER	
GHEE, ASHANTI	
ART UNIT	**PAPER NUMBER**
2626	

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/526,482	HORI ET AL.	
	Examiner	Art Unit	
	Ashanti Ghee	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,21,22,35 and 36* is/are rejected.

7)☒ Claim(s) *5-20,23-34 and 37-48* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 March 2000* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the length is too long and the abstract can only contain one paragraph. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Cook et al. (US Patent No. 5,500,928).

Regarding claim 1, Cook discloses a printer to be connected to a host information processor via a given communication medium, the printer comprising: printer language specifications storage means (memory manager 107) for storing (stores) under the control of an operating system (computer 101 reads on operating system) operable on said host information processor (computer), printer language specifications (PDL interpreter) which indicates a correspondence between a plot object forming application print data (graphic primitives) generated at printing (printing) by an application (computer) operable on the host information processor (101) and a printer language (PDL) for printing (printing) the plot object (graphics primitive) on the printer

(print engine 109 reads on printer; col. 5, lines 39-col. 6, lines 1-13); printer language specifications setting data generation means (display list processor) for reading (reads) said printer language specifications (display lists) from said printer language specifications storage means (107) to generate (creates) printer language specifications setting data (display lists) predetermined therefore (col. 5, lines 39-col. 6, lines 1-13); language specifications setting data transmission processing start means (check 561) for outputting said printer language specifications setting data (lists) generated by said printer language specifications setting data generation means (lists) with a predetermined timing (time reads on timing; col. 9, lines 56-col. 10, lines 1-3); and bi-directional communication means for receiving said printer language specifications setting data for transmission to said host information processor (Fig. 1).

Regarding claim 3, Cook discloses the printer further comprising control language generation means for converting said printer language specifications setting data generated by said printer language specifications setting data generation means into control language in a predetermined format for output to said language specifications setting data transmission processing start means (col. 8,lines 39-57), wherein said language specifications setting data transmission processing start means outputs the control language data received from said control language generation means to said bi-directional communication means with a predetermined timing (col. 9, lines 56-col. 10, lines 1-3).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claim 2 is rejected under 35 U.S.C. 102(e) as being anticipated by Mitsuhashi (US Patent No. 6,535,293 B1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

6. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Regarding claim 2, Mitsuhashi discloses a printer to be connected to a host information processor via a given communication medium, the printer comprising: control language specifications storage means (page memory 116) for storing, under the control of an operating system (operating system) operable on said host information processor (host computer reads on host information processor; col. 11, lines 30-col. 12, lines 1-58), control language specifications (commands) which indicates a correspondence between a control element forming application print data (command) generated at printing (printing) by an application operable on the host information processor (computer) and a control language (print job control language) for printing the plot object (plotting of graphics) on the printer (col. 11, lines 30-48 and col. 12, lines 1-58); control language specifications setting data generation means (plot processing executing unit 115) for reading (read out) said control language specifications (command) from said control language specifications storage means (116) to generate control language specifications setting data (commands) predetermined therefore (col. 11, lines 30-col. 12, lines 1-58); language specifications setting data transmission processing start means (interface 111) for outputting (sending) said control language specifications setting data (data) generated by said control language specifications setting data generation means (115) with a predetermined timing (col. 11, lines 30-col. 12, lines 1-58); and bi-directional communication means (IEEE-1284) for receiving (receiving) said control language specifications setting data (data) for transmission (sending) to said host information processor (col. 11, lines 30-col. 12, lines 1-58).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being obvious over Mitsuhashi (US Patent No. 6,535,293 B1) in view of Cook et al. (US Patent No. 5,500,928).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned

by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding claim 4, Mitsuhashi does not disclose converting control language data into a predetermined format. However, Cook discloses the printer further comprising control language generation means for converting said printer language specifications setting data generated by said printer language specifications setting data generation means into control language in a predetermined format for output to said language specifications setting data transmission processing start means (col. 8,lines 39-57), wherein said language specifications setting data transmission processing start means outputs the control language data received from said control language generation means to said bi-directional communication means with a predetermined timing (col. 9, lines 56-col. 10, lines 1-3).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made would combine the teachings of Mitsuhashi and Cook due to both references disclosing printing apparatuses that use graphic objects to prevent high cost and the complexity of banding to a printing system.

9. Claim 21, 22, 35, and 36 are rejected under 35 U.S.C. 103(a) as being obvious over Cook et al. (US Patent No. 5,500,928) in view of Mitsuhashi (US Patent No. 6,535,293 B1).

Regarding claim 21, Cook discloses a printer driver provided in a host information processor to be connected to a printer via a given communication medium,

the printer driver comprising: bi-directional communication for receiving communication data from said printer (Fig. 1); communication data determination means (determination 352) for determining (determine), under the control (instruction) of an operating system (computer 101) on said host information processor (101 reads on host information processor; col. 8, lines 8-52), whether or not the communication data (command) received by said bi-directional communication means is printer language specifications setting data (PDL command) which indicates, a correspondence between a plot object forming application print data (graphic primitives) generated at printing (printing) by an application operable on the host information processor (101) and a printer language (PDL) for printing the plot object on the printer (col. 5, lines 39-col. 6, lines 1-13); and printer language generation means (display list processor) for obtaining, according to the application print data at printing, said printer language (PDL) corresponding to the plot object (graphic primitives) from said printer settings storage means (memory manager 107) to generate (creates) printer language print data (display lists) for transmission to said printer (print engine 109) via said bi-directional communication means (col. 5, lines 39-col. 6, lines 1-13).

Although Cook does not disclose a printer language specifications setting means for registering printer language specifications and printer settings storage means, Mitsuhashi discloses printer language specifications setting means (area-information registration processor) for registering (registers) printer language specifications (PDL code) according to said printer language specifications setting data (PDL) determined by said communication data determination means (col. 13, lines 3-col. 14, lines 1-25);

printer settings storage means (area information storage area) for storing said printer language specifications (PDL code) according to the registration processing (registration processor) carried out by said printer language specifications setting means (PDL analyzer in col. 11, lines 21-47; col. 13, lines 3-col. 14, lines 1-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made would combine the teachings of Mitsuhashi and Cook due to both references disclosing printing apparatuses that use graphic objects to shorten the time needed for print processing and to provide a transition from operating mode decisions made by the user to autonomous operating mode made by the printer driver.

Regarding claim 22, Cook discloses a printer driver provided in a host information processor to be connected to a printer via a given communication medium, the printer driver comprising: communication data determination means (determination 352) for determining (determine), under the control (instruction) of an operating system (computer 101) operable on said host information processor (101 reads on host information processor; col. 8, lines 8-52), whether or not the communication data (commands) received by said bi-directional communication means is control language specifications setting data (PDL command) which indicates, a correspondence between a control element forming application print data (instruction) generated (generated) at printing by an application (computer 101) operable on the host information processor (101) and a control language (printing commands) for setting the control element (print engine 109) on the printer (printer 100 reads on printer; col. 5, lines 1-col. 6, lines 1-63);

and control language generation means (computer 101) for obtaining, according to the application print data at printing, said control language (high level printing commands) corresponding to the control element (109) from said printer settings storage means to generate (generated) control language print data (PDL command) for transmission to said printer via said bi-directional communication means (col. 5, lines 39-col. 6, lines 1-63).

Although Cook does not disclose a control language specifications setting means for registering control language specifications and printer setting storage means, Mitsuhashi discloses control language specifications setting means (area-information registration processor) for registering (registers) control language specifications (PDL) according to said control language specifications setting data (PDL code) determined by said communication data determination means (col. 13, lines 3-col. 14, lines 1-25); printer settings storage means (area information storage area) for storing said control language specifications (PDL code) according to the registration processing carries out by said control language specifications setting means (col. 13, lines 3-col. 14, lines 1-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made would combine the teachings of Mitsuhashi and Cook due to both references disclosing printing apparatuses that use graphic objects to shorten the time needed for print processing and to provide a transition from operating mode decisions made by the user to autonomous operating mode made by the printer driver.

Regarding claim 35, Cook discloses a recording medium on which printer driver program to be run on a computer device is recorded for realizing an operational environment on the computer device, the program comprising the steps of: determining (determination 352), under the control (instruction) of an operating system (computer 101) operable on a host information processor (101 reads on host information processor; col. 8, lines 8-52), whether or not said communication data (command) is printer language specifications setting data (PDL command) which indicates a correspondence between a plot object forming application data (graphic primitives) by an application operable on the host information processor (computer 101) and a printer language (101) for printing the plot object on the printer (col. 5, lines 1-col. 6, lines 1-63); and generating (creates), with the application print data at printing, printer language print data (PDL) for transmission to said printer (print engine 109) according to said printer language corresponding to said registered plot object (col.5, lines 39-col. 6, lines 1-13).

Although Cook does not disclose receiving communication data from a printer and registering printer language specifications, Mitsuhashi discloses receiving (sending data) communication data from a printer (printer reads on printer; col. 11, lines 14-48); registering (registers) printer language specifications (PDL code) according to said determined printer language specifications setting data (PDL analyzer in col. 11, lines 21-47; col. 13, lines 3-col. 14, lines 1-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made would combine the teachings of Mitsuhashi and Cook

due to both references disclosing printing apparatuses that use graphic objects to shorten the time needed for print processing and to provide a transition from operating mode decisions made by the user to autonomous operating mode made by the printer driver.

Regarding claim 36, Cook discloses a recording medium on which printer driver program to be run on a computer device is recorded for realizing an operational environment on the computer device, the program comprising the steps of: determining (determination 352), under the control (instruction) of an operating system (computer 101) operable on a host information processor (101 reads on host information processor; col. 8, lines 8-52), whether or not said communication data (command) is control language specifications setting data (PDL command) which indicates a correspondence between a control element forming application print data (graphic primitives) by an application operable on the host information processor (computer 101) and a control language (printing commands) for setting the control element (print engine 109) on the printer (col. 5, lines 1-col. 6, lines 1-63); and generating (creates), with the application print data at printing, control language print data (PDL) for transmission to said printer (print engine 109) according to the correspondence between said registered control element and said control language (col.5, lines 39-col. 6, lines 1-13).

Although Cook does not disclose receiving communication data from a printer and registering printer language specifications, Mitsuhashi discloses receiving (sending data) communication data from a printer (printer reads on printer; col. 11, lines 14-48); registering (registers) control language specifications (PDL code) according to said

determined control language specifications setting data (PDL analyzer in col. 11, lines 21-47; col. 13, lines 3-col. 14, lines 1-25).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made would combine the teachings of Mitsuhashi and Cook due to both references disclosing printing apparatuses that use graphic objects to shorten the time needed for print processing and to provide a transition from operating mode decisions made by the user to autonomous operating mode made by the printer driver.

Allowable Subject Matter

10. Claims 5-20, 23-34, and 37-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Andresen (US Patent No. 5,600,768) discloses an image generation with dynamically consolidated list of image data.

Sato (US Patent No. 4,949,188) discloses an image processing apparatus.

Kadota (US Patent No. 6,166,824) discloses a print data processing and compression apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashanti Ghee whose telephone number is (703) 306-3443. The examiner can normally be reached on Mon-Thurs and alt. Fri. (7-4PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on (703) 305-4863. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9313.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Ashanti Ghee
Examiner
Art Unit 2626

AG
December 15, 2003

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER